

**Charles House-Yorktown Eldercare Home:
A Program and Evaluation Plan**

By

Maria F. D'Souza

A Master's Paper submitted to the faculty of
the University of North Carolina at Chapel Hill
in partial fulfillment of the requirements for
the degree of Master of Public Health in
the Public Health Leadership Program

Chapel Hill

2014



Advisor: Diane Calleson, PhD

June 11, 2014

Date



Second Reader: Sheryl Zimmerman, PhD

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ABSTRACT

With the aging of the American population and the rising prevalence of chronic disease and disability, there will be increasing numbers of older Americans in need of long-term care in the coming decades. Unfortunately, many current models of residential long-term care are associated with suboptimal quality of life for residents and high levels of caregiver burden among their family caregivers. The Charles House-Yorktown Eldercare Home is a small care home that was started in 2011 in Chapel Hill, North Carolina in response to the need for holistic residential eldercare expressed by local families caring for elder relatives in the community, and its overarching goal is to provide high quality residential elder care in a community context. The program provides person-centered residential care to 6 elders in a small, home-like setting in a suburban neighborhood and purposefully involves family caregivers in care and household life. As a next step in community involvement, the Eldercare Home plans to reach out to neighbors and other stakeholders to learn how it might better support and enhance the neighborhood and its needs. The purpose of the following program and evaluation plan is to outline the program's development to date and its future directions, formally articulate its goals, and plan for evaluation, towards program improvement and dissemination. The program's logic model provides a framework for linking goals and activities, and is accompanied by a detailed implementation plan. A mini-systematic literature review provides insight into evaluation methods reported in the literature by similar programs. The focus of evaluation plans is elucidated through consideration of resources and rationale for undertaking evaluation. Evaluation planning tables provide a framework for an observational mixed-methods approach, and dissemination plans for evaluation findings are also outlined. The Charles House-Yorktown Eldercare Home program represents a novel strategy for improving the quality of life of elders who require residential care as well as that of their family caregivers, while engaging the surrounding neighborhood in mutually beneficial ways.

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INTRODUCTION

The American population is undergoing a dramatic demographic shift, as the "baby boomer" generation (encompassing adults born between 1946 and 1964) ages. The baby boomers began turning 65 in 2011, and the segment of the population over age 65 will double to 20 percent of the population by 2030, or around 72 million people, and will reach 89 million by 2050 (Centers for Disease Control and Prevention, 2013).

As the aging population expands, there is an increasing need for adequate capacity and quality of residential long-term care options for the growing population of older adults who are unable to live on their own due to chronic health problems that impair their ability to perform daily activities. According to the American Hospital Association, more than sixty percent of baby boomers will suffer from more than one chronic condition by 2030 (American Hospital Association, 2007). However, concerns exist about the quality of life of residents of traditional residential long-term care settings, and about caregiver burden among family members of older adults requiring long-term care, both of which are increasingly recognized to represent significant public health problems.

Nursing homes are the traditional mainstay of residential long-term care and provide full room and board, as well as supervision and nursing care 24 hours a day. A report issued by the Institute of Medicine in 2001 about the quality of long-term care identified persistent serious problems with quality of care and quality of life among nursing home residents despite progress made after a similar report issued in 1986 (Institute of Medicine, 2001). Widespread dissatisfaction with the institutional culture of nursing homes has spurred a "culture change" movement, which aims to improve the quality of life of nursing home residents through person-centered care structures and processes (Zimmerman, Shier, & Saliba, 2014). However, evidence of corresponding improvements in quality of life of nursing home residents is lacking (Shier, Khodyakov, Cohen, Zimmerman, & Saliba, 2014).

Assisted living is a type of residential care characterized by less intensive services than nursing homes, and these settings typically provide room and at least two meals per day, with unscheduled nursing oversight 24 hours a day. In recent years, assisted living has grown significantly, by as much as 97% during the 1990s (Harrington, Chapman, Miller, Miller, & Newcomer, 2005). While assisted living was initially developed to embody a social model of care and to offer only limited medical services and staff in contrast to the medical model of nursing homes, the industry has undergone significant changes as it has grown in order to accommodate preferences for aging in place while meeting the needs of residents with declining health and physical function. These changes include adaptations of the physical structure and culture that have at times rendered them increasingly similar to nursing homes. Similar to findings of suboptimal quality of life in nursing homes, some studies indicate residence in assisted living is associated with a suboptimal fit for some residents (Morgan et al, 2014).

In addition to the problem of suboptimal quality of life in traditional residential long-term care settings, a related problem is that of informal caregiver burden, which refers broadly to the toll exacted on the family and friends who care for elders. Caregiving has been increasingly recognized as a serious and growing public health problem in recent decades, affecting the physical and mental health and well-being of caregivers (Talley & Crews, 2007). There are an estimated 44.4 million caregivers aged 18 and older in the U.S. (21% of the adult U.S. population) who provide unpaid care to an adult family member or friend who is also age 18 or older (National Alliance for Caregiving & American Association of Retired Persons, 2004). Furthermore, the ratio of available family caregivers to persons needing care is projected to decline sharply from greater than 7 to 1 in 2010 to less than 3 to 1 by 2050, potentially resulting in even higher levels of physical and emotional strain (Redfoot, Feinberg, & Houser, 2013). While caregiver burden is most readily recognized as being relevant to caregivers whose care recipient lives with them, or otherwise in the community, it is well-documented that family caregiving roles and responsibilities continue when the care recipient resides in a formal

residential care setting such as nursing home or assisted living, and that caregiver stress can occur at equally significant levels in these caregivers (Stull, Cosbey, Bowman, & McNutt, 1997), although there is a shift in its nature (George, 1984). New sources of burden include financial strains (Moody, 2002), coping with guilt (George, 1984), working to maintain the relative's sense of dignity in the new setting, and interactions with formal care providers in the new setting (Chen, Sabir, Zimmerman, Sutor, & Pillemer, 2007; Brody, Dempsey, & Pruchno, 1990).

In light of the expansion of the aging population and the suboptimal quality of life experienced by many residents of traditional residential care settings and their family caregivers, there is a strong need for new residential long-term care options that seek to improve quality of life for both elders and their families. Successful strategies might aim to enhance residents' quality of life by preserving important aspects of the social model of care while acknowledging and negotiating inevitable health decline, and to enhance family caregivers' quality of life by purposefully and holistically involving family caregivers in care, towards minimizing caregiver burden. Community-based models are particularly needed, as the vast majority of older adults express preferences to remain in their local communities for as long as possible (Keenan, 2010).

Small care homes have been identified as a promising strategy to provide higher quality of life than that of traditional residential eldercare settings. Small care homes arose out of the culture change movement and provide person-centered care in small-scale, home-like environments. The Green House model is the most widely known example of this concept, and while rigorous evidence is lacking, studies that have been conducted to date have found higher quality of life of Green House residents in comparison with residents of traditional nursing homes (Zimmerman & Cohen, 2010; Kane, Lum, Cutler, Degenholtz, & Yu, 2007; Rabig, Thomas, Kane, Cutler, & McAlilly, 2006). Following the creation of the initial Green House in 2003, the model has been disseminated and trademarked, with the existence of 89 licensed Green Houses throughout the United States and another 125 in development as of July, 2010

(Zimmerman & Cohen, 2010). The study by Zimmerman and Cohen (2010) identified Green Houses as possessing 6 essential elements: physical structure (small, housing no more than 12 residents; private rooms and bathrooms; access to outdoors), dining (non-institutional, residential style kitchen), staffing (consistent assignment, universal role within self-managed teams, clinical staffing nearby), diverse and stable elder case mix, elder centered care (not according to fixed schedules), and normalized social engagement rather than organized activities. Green Houses are most often licensed as nursing homes and situated on the grounds of larger traditional nursing homes with which they are affiliated.

Charles House-Yorktown Eldercare Home bears many similarities to the Green House model and is an independent small care home that was established in Chapel Hill, North Carolina in 2011 in response to the need for holistic residential eldercare expressed by local families caring for elder relatives in the community. The program was started by the Charles House Association, a nonprofit community organization that operates a long-standing adult day care program in the Chapel Hill area, and whose organizational mission is to enrich the lives of seniors, support their caregiving families, and represent the community's commitment to its elders (Charles House Association, 2014). Following an invitation by the Heritage Hills neighborhood association to locate in an abandoned private residence, Charles House partnered with the association to develop the Yorktown Eldercare Home. While not affiliated with the Green House network, the program incorporates the same essential elements described above that typify Green Houses. Licensed for up to 6 individuals in a purposefully renovated ranch-style home in the suburban neighborhood, the home uses a household staffing model and holistic care philosophy. Program staff work with families to shape their continued important role as caregivers and to incorporate them into household life. Neighbors and community partners also are involved in life at the home, informally and through service-learning partnerships. As a next step in community involvement, the Eldercare Home plans to reach out to neighbors to learn how it might better support and enhance the neighborhood and its needs.

A second eldercare home is slated to open in Chapel Hill in August 2014, with the goal of further development throughout other neighborhoods, creating a decentralized network of community-based long-term care settings (Sloane, Zimmerman, & D'Souza, in press). The program leadership became interested in conducting an evaluation of the program when the opportunity arose to collaborate with researchers at the University of North Carolina-Chapel Hill, with the purposes of program improvement and potential dissemination of the program's model.

The purpose of the following program and evaluation plan for the Charles House-Yorktown Eldercare Home is therefore to formally articulate the basis of the program, optimize its ongoing development and future directions, and plan for evaluation. This document consists of a program and evaluation plan in 3 parts:

1. Program Plan: The Program Plan outlines the program's development to date, as well as future directions for development. It includes discussion of the contextual factors surrounding the program's creation, identification of relevant theoretical frameworks in support of the program's activities, gleaning of goals and objectives of the program, depiction of a logic model, and description of the program's implementation.
2. Literature Review: The literature review is a mini-systematic review that identifies evaluation methods undertaken by similar programs, for the purpose of informing the development of the evaluation plan, and it includes a summary table of evidence.
3. Evaluation Plan: The evaluation plan outlines an evaluation plan to assess areas for program improvement and for potential dissemination of the program's model. It addresses the rationale for and approach to the evaluation, evaluation design and methods, evaluation planning tables, institutional review board considerations and dissemination of findings.

PROGRAM PLAN: PAST, CURRENT AND FUTURE PROGRAM DEVELOPMENT

OVERVIEW OF THE PLAN

Charles House-Yorktown Eldercare Home is a small care home that was established in Chapel Hill, North Carolina in 2011 in response to the need for holistic residential eldercare expressed by local families caring for elder relatives in the community. The program was started by the Charles House Association, a nonprofit community organization that operates a long-standing adult day care program in the Chapel Hill area, and whose organizational mission is to enrich the lives of seniors, support their caregiving families, and represent the community's commitment to its elders (Charles House Association, 2014). Following an invitation by the Heritage Hills neighborhood association to locate in an abandoned private residence, Charles House partnered with the association to develop the Yorktown Eldercare Home. Licensed for up to 6 individuals in a purposefully renovated ranch-style home in the suburban neighborhood, the home uses a household staffing model and holistic care philosophy. Program staff work with families to shape their continued important role as caregivers and to incorporate them into household life. Neighbors and community partners also are involved in life at the home, informally and through service-learning partnerships. As a next step in community involvement, the Eldercare Home plans to reach out to neighbors to learn how it might better support and enhance the neighborhood and its needs. A second eldercare home is slated to open in Chapel Hill in August 2014, with the goal of further development throughout other neighborhoods, creating a decentralized network of community-based long-term care settings (Sloane, Zimmerman, & D'Souza, in press).

The program plan begins with a discussion of the various contextual factors surrounding the program's initiation, followed by identification of theoretical frameworks that support the program's activities, gleaning of the program's goals and objectives, a logic model linking goals and objectives to program activities, and finally, a detailed implementation plan. A budget, organizational chart and timeline for the program are included as appendices.

CONTEXT OF PROGRAM PLAN

In planning a program, it is important to examine various contextual factors surrounding the development and implementation of the program, in order to anticipate challenges and potential solutions (Issel, 2009). Factors that were relevant to the development of Charles House-Yorktown Eldercare Home are discussed here.

The Political Environment

The political environment surrounding the program's inception, at the national, state, local, neighborhood and organizational levels must be considered. At a national level, a major health care reform priority is to reduce healthcare costs and improve quality, including preventing unnecessary hospitalizations, emergency room visits and hospital re-admissions, much of which is federally financed by Medicare. Users of the long-term care system are among those most affected by these issues, resulting in intense interest in new models of long-term care that have the potential to influence health care utilization. The Eldercare Home's holistic philosophy, which emphasizes a social model of care (Charles House, 2014), and which might be expected to result in optimal healthcare utilization patterns, is therefore very much in line with national priorities for new models of long-term care.

There is also great political interest in long-term care at the state level because Medicaid, which is run by the states and provides health insurance to America's low-income population, is the primary payer for long-term care, paying for 40% of all costs. Furthermore, Medicaid expenditures are threatening to break state budgets, having more than doubled from \$54 billion in 1995 to \$123 billion in 2011 (Kaiser Family Foundation, 2013). Thus, there is strong interest in strategies that may reduce these costs. Although environmental and program design innovations for improving quality of life in assisted living often originate in the private sector and are targeted to those who can afford the costs, these innovations can serve as testing grounds for consumer appeal and outcomes by researchers looking to identify effective

components that can be translated to settings that are accessible to a broader usership (Lawton, 2001). This is an important point in light of the pressing societal priority to recognize and eliminate racial and ethnic disparities in health services (Institute of Medicine, 2002).

An additional aspect of the state political environment that is relevant to the planning of a long-term care program is that North Carolina has Certificate of need (CON) laws, which require state approval prior to the creation of new healthcare facilities, dependent on whether the state deems that a sufficient level of need exists. In 2001, adult care homes of seven or more beds were brought under CON regulations in North Carolina (North Carolina Division of Health Service Regulation, 2010). Thus, developing the Eldercare Home to serve a maximum of 6 residents, operating as a family care home, enables the program to avoid being reliant on unpredictable CON approval.

The most important political considerations for the program's feasibility are perhaps at the local and neighborhood levels. Locally, there is strong community support for the Charles House Association, and the Eldercare Home is generally perceived as meeting an important need in the community. The Eldercare Home is situated in a house in the Heritage Hills neighborhood in Chapel Hill, North Carolina, which was selected in close partnership with the Heritage Hills Neighborhood Association, whose support is very necessary for the program's success. The program must continue to work closely with the neighborhood over its lifetime to ensure a continued mutually positive relationship; neighborhood opposition at any point could represent a political obstacle to the program's sustainability.

Financial politics also warrant consideration. At the organizational level, there are no competing financial interests within the Charles House Association for funding and resource allocation. At the market level, corporate nursing home chains serve an overlapping population of patients and while they are powerful entities, they face no shortage of business in the foreseeable future, and have not thus far demonstrated any intent to suppress small assisted living facilities.

Consistency with Local, State and National Priorities

A proposed program's consistency with local, state, and national priorities increases the likelihood of the program receiving support from key stakeholders at these levels. Expanding long-term care options is a priority at each of these levels. For example, improving the health, function and quality of life of older adults is the overarching goal of the new "Older Adults" topic area in Healthy People 2020 (U.S. Department of Health and Human Services, 2010). At the state level, health priorities set forth in Healthy North Carolina 2020 do not yet explicitly include the health of older adults, although this might be expected in the future, reflecting trends at the national level (North Carolina Institute of Medicine, 2011).

There is specific emphasis on improving dementia care as a national priority, per the high visibility National Alzheimer's Plan and the Healthy Brain Initiative (U.S. Department of Health and Human Services, 2013; Alzheimer's Association & Centers for Disease Control and Prevention, 2013).

Acceptability to Providers and Recipients

The Charles House Eldercare Home is expected to be extremely desirable to program recipients and their families, based on widely acknowledged preferences for more home-like environments and person-centered care than what is currently available in traditional skilled nursing facilities. Cost will be a barrier to many, however.

Providers are also anticipated to receive the program favorably, including physicians, nurses, and direct care staff. Job satisfaction is expected to be higher for the nursing assistants who will conduct the hands-on activities of the program in comparison to job satisfaction in traditional nursing homes, primarily due to a work environment that is less hierarchical in its staffing model. While higher intensity attention to individual residents will be required, this is expected to be off-set by a lower staff to resident ratio and greater personal fulfillment from

closer relationships with residents and the ability to deliver better care. Physicians are not directly involved in the program's operation or significantly affected by its existence, but their opinions can be influential. Thus, it is favorable that geriatric medicine physicians are strong supporters of the "culture change" movement in long-term care, of which the Eldercare Home is a part, and it is also favorable that there is physician representation on the Charles House Board of Directors.

Financial Constraints and Resources

There are no significant financial constraints for the program's initiation. The program's parent organization, Charles House Association, is well-established and fiscally sound, and was able to finance the program's start-up costs. After start-up, the program is financially self-sustaining, through collection of participant fees.

Technical and Administrative Feasibility

The program plan is highly feasible from a technical and administrative standpoint. Robust administrative infrastructure exists within the parent organization, Charles House Association, which has easily accommodated administrative oversight of the Eldercare Home program. This infrastructure includes the Board of Directors, Executive Director, Administrative Director, Activities Director and clerical staff. Furthermore, a pool of nursing assistants trained in the Charles House philosophy of person-centered care already exists at Charles House, from whom to recruit staff for the Eldercare Home, and who are also instrumental in the training of new nursing assistants. A final comment about feasibility is that descriptions of the processes of similar small-house residential care programs have been published and their feasibility demonstrated, which the Eldercare Home is able to draw upon for program development.

RELEVANT PROGRAM THEORIES

Successful programs are guided by established, evidence-based theoretical frameworks throughout the program planning, implementation, monitoring and evaluation cycle (Dickens, 2008). Various program theories were examined for their relevance and applicability to support the activities of the Charles House Eldercare Home. The overarching healthcare needs that the program aims to address are the need for improving the quality of life of elders receiving residential long-term care and the need to reduce caregiver burden and to improve the quality of life of family caregivers. Applying an ecological perspective to these problems, theories relevant to the individual, interpersonal, organizational and community levels were identified, and lend support to the program's likelihood for effectiveness.

Ecological Perspective

Applying an ecological perspective to a healthcare problem entails analyzing the problem and identifying causal factors at multiple levels, from individual to community, in order to target solutions effectively. Factors operating at the individual, interpersonal and organizational levels that contribute to poor quality of life for nursing home residents include an "institutional" physical and social environment, lack of choice and autonomy, isolation from family and community, and lack of adequate meaningful social connections. A significant underlying factor at the community and societal level is that of ageism, resulting in neglect of frail elders in residential long-term care settings.

Caregiver burden is also a target for improvement by the program, primarily in family members of the residents of the eldercare home and secondarily in caregivers in the surrounding neighborhood. Causal factors operate at multiple levels. At the interpersonal level, family members are known to experience caregiver burden even when the care recipient relocates to a residential long-term care setting (Chen et al, 2007). Family caregivers who live with and provide care for a care recipient at home experience caregiver burden in part due to

social isolation (Tebb, 2000). By extension, the absence of social norms for community support of caregiving families may contribute to caregiver burden at the community and societal level. The need for community support of caregiving is all the more pronounced in an era when family structure is more diverse than in prior generations, traditional support networks have changed, families are often geographically dispersed, and many women work outside the home.

Social Cognitive Theory

The interpersonal causes of poor quality of life for nursing home residents and of caregiver burden described above represent targets for intervention by the program. Social cognitive theory is a widely known theoretical framework that operates at the interpersonal level and asserts that person factors, environmental factors and human behavior are interrelated in an ongoing, dynamic manner (National Cancer Institute, 2005). Tailoring the physical environment to be home-like can influence personal attitudes and quality of life, according to the key construct of reciprocal determinism. Giving residents autonomy and choice by delivering person-centered care can influence quality of life, attitudes and behaviors through the constructs of expectations and self-efficacy. Encouraging family and community presence and interaction with residents, as well as facilitating family caregivers' continued meaningful relationships and involvement in care for residents, can promote quality of life through the constructs of reciprocal determinism, self-efficacy and reinforcement.

Community Organization Theory

Community organization theories are useful for targeting interventions to the etiological factors described above that operate at the community level, most notably including the lack of community support for caregiving families who experience high levels of isolation and stress. Community organizing strategies can be integrated with social cognitive theory-based strategies, and can also adapt theories of social networks, social support and social systems to

influence health attitudes and behaviors (National Cancer Institute, 2005). Community organizing strategies are particularly relevant to this context. Because community organizing that starts with the community's priorities rather than externally imposed priorities are more likely to succeed, the Eldercare Home program will look to facilitate focus groups to elicit these priorities as a starting point and the information gained will be used to develop activities using an appropriate theoretical framework.

PROGRAM GOALS AND OBJECTIVES

The following goals and objectives are being articulated from the perspective of ideal goals and objectives at the time of the program's initiation (i.e., retrospectively).

Short-term Objectives (1-3 years)

GOAL 1: Enable optimal quality of life and health for Eldercare Home residents

Objective 1a: Achieve equivalent or higher quality of life for Eldercare Home residents than would be expected in a traditional nursing home, after 12 months of residence.

Objective 1b: Meet national benchmarks for selected health-related quality indicators for Eldercare Home residents, after 12 months of residence.

Strategy for 1a & 1b: By delivering person-centered residential long-term care (LTC) in a small care home

Objective 1c: Achieve high levels of social connectedness as measured by weekly frequency of meaningful contacts in the last two weeks, for all Eldercare home residents.

Strategy: By caregiver and community involvement program components

GOAL 2: Enable optimal quality of life for family caregivers of Eldercare Home residents

Objective 2a: Achieve lower levels of caregiver burden for primary family caregivers of Eldercare Home residents, as compared with caregivers of nursing home residents or with baseline measurements in Eldercare Home caregivers, after 12 months.

Objective 2b: Achieve lower levels of caregiver depression for primary family caregivers of Eldercare Home residents, as compared with caregivers of nursing home residents or with baseline measurements in Eldercare Home caregivers, after 12 months.

Objective 2c: Achieve higher levels of quality of life for primary family caregivers of Eldercare Home residents, as compared with caregivers of nursing home residents or with baseline measurements in Eldercare Home caregivers, after 12 months.

Strategy: By developing a protocol of education and activities to facilitate family caregivers' transition to a modified caregiving role during and after their relative's relocation to the Eldercare Home, and to ensure the ongoing meaningful involvement of family caregivers

Long-term Objectives (3-5 years)

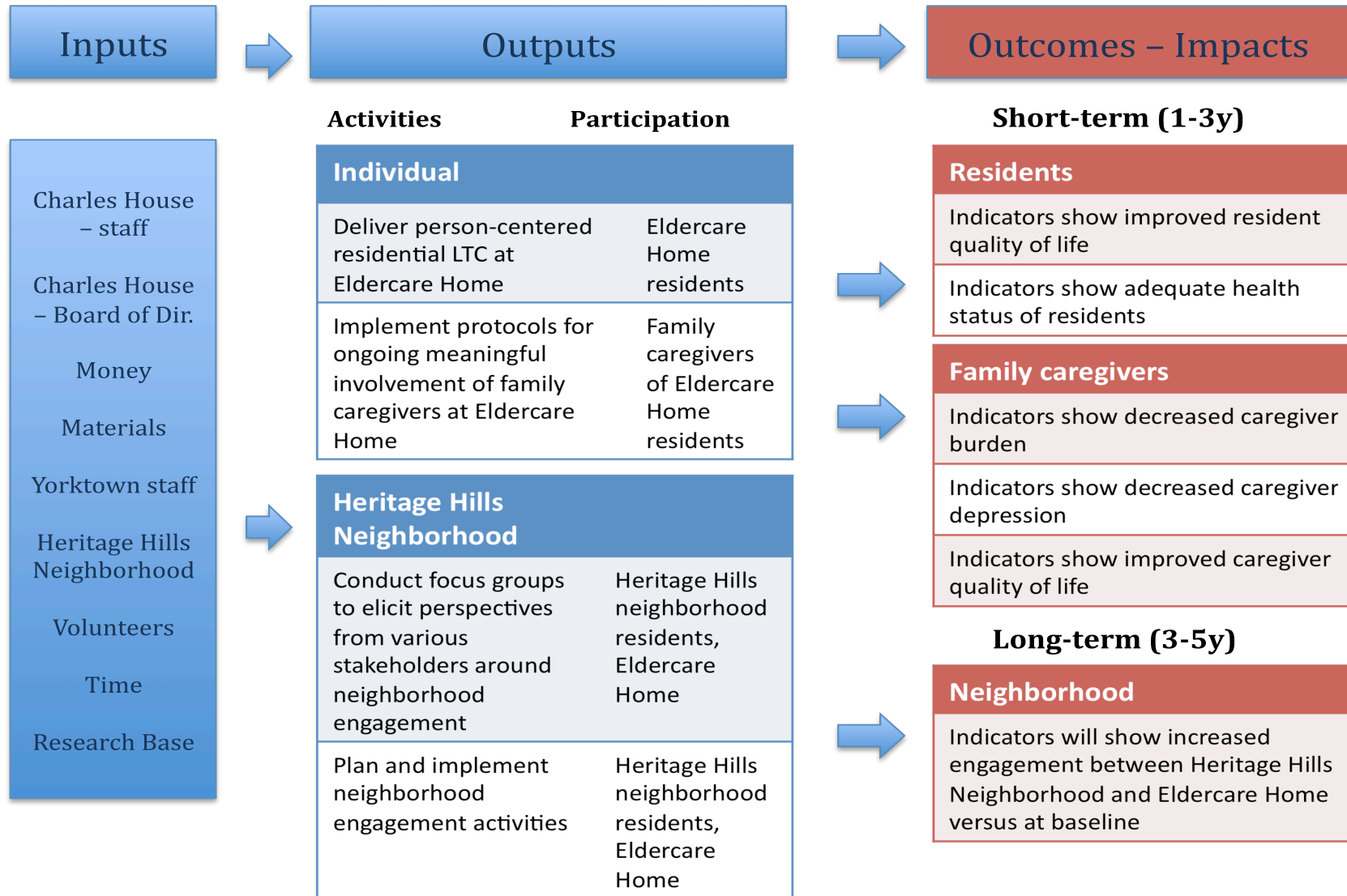
GOAL 3: Engage the Heritage Hills Neighborhood with the Eldercare Home in mutually beneficial ways.

Objective 3: By 5 years of operation, indicators will show increased neighborhood engagement between the Eldercare Home and the Heritage Hills Neighborhood as compared to baseline.

Strategy: During the 4th year of operation, conduct focus groups to elicit perspectives and priorities of Heritage Hills Neighborhood residents, Eldercare Home residents and their family caregivers, and program staff and leadership, with an emphasis on identifying neighborhood residents who are caregivers. During the 5th year of operation, utilize information gained from focus groups to develop and implement activities to engage the neighborhood and the Eldercare Home in mutually beneficial ways, with an emphasis on supporting neighborhood caregivers, if any.

LOGIC MODEL FOR CHARLES HOUSE-YORKTOWN ELDERCARE HOME

Health problem: Suboptimal quality of life for elders receiving residential long-term care and their family caregivers



PROGRAM IMPLEMENTATION

The following implementation plan is articulated retrospectively, from the perspective of the program's initiation.

Activities

Short-term objectives To fulfill the short-term objectives of enabling optimal quality of life and health for elders who need residential long-term care, the program will deliver person-centered residential care to 6 elders in the Eldercare Home. To fulfill the short-term objectives of improving caregiver burden, caregiver depression and caregiver quality of life, the program will implement protocols to facilitate caregivers' transition to their new caregiving roles and to facilitate their continued meaningful involvement in their family's members' care.

Long-term objectives To fulfill the long-term objective of engaging the Heritage Hills Neighborhood and the Eldercare Home in mutually beneficial ways, the program will conduct focus groups, in partnership with researchers at the University of North Carolina-Chapel Hill, to elicit perspectives from neighborhood residents, Eldercare Home residents and family caregivers, direct care staff and program leadership. The program will then utilize results from the focus groups to plan activities to engage the Heritage Hills Neighborhood and the Eldercare Home in mutually beneficial ways (e.g. efforts or activities initiated by the Eldercare Home that involve members of both the Eldercare Home and the Heritage Hills neighborhood, and which center around interests valued by both).

Sustainability

Throughout the implementation of the program, program staff will conduct activities to ensure its continued sustainability, most notably including building community support by engaging the Heritage Hills Neighborhood Association and residents.

5-Year Budget Justification

The following section explains and provides justification for the proposed 5-year budget for the initial operation of the Yorktown Eldercare Home program (Appendix). Start-up costs have already been funded and accomplished, including purchase, renovation and furnishing of the Eldercare Home; hiring and training of staff; recruiting participants.

Income: Total: \$2,020,950

The program takes in \$404,190 annually in occupancy fees, charging a cost of \$67,365 annually for each of the six residents (equivalent to \$185/day). Fees are largely private pay at this time, and cover the cost of room and board, activities, personal care, and oversight by a registered nurse. Not covered: physician/health care, medications. The total 5-year income is \$2,020,950, with net income \$88,820, to be applied to construction of the next Eldercare Home.

Expenses: Total: \$1,932,130

Personnel: Total: \$1,472,880

Personnel are listed in the organizational chart (Appendix). Total 5-year personnel costs, including salaries and benefits, constitute the largest expense category, at a cost of \$1,472,880. These personnel are critical components of the program's success, to conduct the activities of person-centered care for elders and implementation of activities engaging neighborhood elders and caregivers. Community members who volunteer on the Charles House Association Board of Directors approve the budget and activities. The Charles House Association Executive Director and Administrative Director administer the program and oversee the part-time registered nurse, the full-time household coordinator, 14 full-time and part-time nursing assistants, and activities director. Program evaluation will be undertaken as an academic partnership by this author, a graduate student at the University of North Carolina-Chapel Hill School of Public Health, and faculty advisor. Undergraduate students from the university also volunteer at the program.

Building: Total: \$138,385

Expenses related to the building operation, maintenance and mortgage total \$138,385 and are detailed in the appendix. Mortgage and interest totals \$82,440 over 5 years, and property maintenance and utilities total \$55,945.

Insurance: Total: \$77,115

Required insurance costs include professional liability (\$3274 per year), workman's compensation (\$6380 per year) and North Carolina unemployment (\$5769 per year), for an annual total of \$15,423.

Eldercare Home Expenses: Total: \$131,135

Eldercare home expenses include all costs related to providing room and board for the resident elders apart from building expenses, at an annual cost of \$26,227. The main expense is kitchen and dietary, including annual grocery cost of \$16,880. Other expenses include cable/phone/internet, medication and pharmacy, equipment and garden/newspaper/general. Activity supplies are donated by local businesses.

Administrative: Total: \$18,180

Administrative costs include office supplies (\$54), postage (\$9), bank charges (\$36), telephone (\$613), mileage/vehicle (\$2439), staff appreciation/events (\$170), and professional dues/licensure (\$315), for an annual cost of \$3636.

Depreciation: Total: \$18,887

SYSTEMATIC REVIEW: INFORMING THE EVALUATION PLAN

INTRODUCTION

A mini-systematic literature review was conducted as a preliminary step in developing the program evaluation plan, with the aim of identifying evaluations undertaken by similar or related programs, towards avoiding duplication of efforts, anticipating evaluation challenges, and identifying gaps in knowledge and practice. Longitudinal studies were sought over cross-sectional studies for their greater rigor.

Two research questions guided this literature review: (1) What types of longitudinal evaluations have been reported of small scale residential long-term care programs for elders? (2) What information exists on their processes and outcomes in terms of quality of care and quality of life?

METHODS

I conducted several preliminary searches in the PubMed database to identify and hone in on appropriate search terms and MeSH terms. Ultimately, I performed a search of PubMed through January 27, 2014 using the following search terms and an English language filter: ("Residential Facilities/organization and administration"[Majr] AND ("Quality of Life"[Mesh]) AND "Aged"[Mesh]) AND "Longitudinal Studies"[Mesh]. This search yielded 24 references, which I reviewed for relevance using the further inclusion criteria of being completed studies rather than protocols of planned studies, focusing on small scale residential long-term care facility for elders as the intervention and focusing on quality of life as a primary outcome. Studies of programs aimed primarily at individuals with stroke or psychiatric illness were excluded. Using these criteria, I identified two studies: a study by Kane et al. (2007), evaluating health and quality of life outcomes in residents of Green Houses versus traditional nursing homes, and a study by

Molony, Evans, Jeon, Rabig, & Straka (2011) evaluating trajectories of at-homeness and health in residents of small house nursing homes versus traditional nursing homes.

In order to find evaluations of programs implemented specifically in assisted living settings rather than in nursing homes, which may not have been captured in the initial search using the MeSH major topic search term "Residential Facilities/organization and administration," I performed an additional search of PubMed through January 27, 2014, using the terms (((assisted living facilities[MeSH Terms]) AND quality of life[MeSH Terms]) AND aged[MeSH Terms]) AND longitudinal studies[MeSH Terms], which yielded 8 references, some of which were identified by the initial search and some of which were not. Applying identical additional inclusion and exclusion criteria to select relevant studies from the search, I identified 1 trial by Reimer, Slaughter, Donaldson, Currie, & Eliasziw (2004), that compared residents of small scale special care residences to residents of traditional facilities, with quality of life as the main outcome.

Finally, I consulted a faculty member at the University of North Carolina-Chapel Hill who is an expert in the field to recommend literature relevant to this project. Based on the input I received, I also included a cross-sectional study by Davis et al. (2000) about specialized dementia programs in residential care settings in multiple states. Thus, I will be analyzing a total of 4 papers and then summarizing conclusions.

RESULTS (see Table 1)

Resident outcomes of the initial Green House program (Kane et al., 2007)

Program Description

The Green House Model is an innovative "small-house nursing home" that was purposefully developed as an alternative to the traditional nursing home model, with the principles of the nursing home culture-change movement at its core. The model was first implemented in Tupelo, Mississippi in 2003 and is characterized by a fundamental overhaul of

traditional nursing home physical, organizational and philosophical structures. Specifically, the model promotes a smaller scale, self-contained and more home-like physical environment for seven to ten residents (private rooms and bathrooms, residential kitchen, dining room and hearth); a staffing model that empowers the direct care workers, reinventing certified nursing assistants as “universal workers” called Shabhazim with duties extending to include household tasks such as food preparation and laundry and who report to an administrator called a “Guide”; and a philosophy of care that reflects a fully person-centered orientation, with resident quality of life and personhood in a “normal” rather than “therapeutic” context as paramount. Eligible residents are usual nursing home eligible residents, with or without dementia. The Green Houses exist as a cluster of small houses on a campus or scattered throughout a neighborhood, which are licensed as a nursing home (although some assisted living models also exist), and which are subject to usual state Medicaid reimbursement rates (Rabig et al., 2006).

Evaluation Method

Kane and colleagues undertook a 2 year longitudinal quasi-experimental study to compare outcomes between Green House residents and two groups of traditional nursing home residents, from Cedars, the “sponsoring” non-profit nursing home that operated the Green House, and Trinity, a nursing home in another part of the state with a similar campus and the same owners. Quality of care and quality of life were the primary outcomes, as measured by various Minimum Data Set (MDS) indicators for quality of care, and by self-report instruments for quality of life, emotional well-being, satisfaction, health and functional status. Data were collected through interviews with staff, residents and family members at baseline and at 3 six-month follow-up intervals. Residents were not able to be randomized; half of the initial Green House residents were relocated from the locked dementia unit at Cedars based on prior agreement, and the remaining Green House residents were voluntarily recruited. Multivariate regression models were performed.

Evaluation Outcomes

Results overall favored Green House as a promising model, and supported the study hypothesis of higher quality of life and at least equivalent quality of care at Green Houses in comparison to traditional nursing homes. The sample was dynamic at all three sites, with new residents replacing those who died or moved away, and time in the residence was accounted for as a variable in the analysis. Green House and Trinity occupancy size at each time point was targeted for 40 participants each, and for Cedars was targeted at 70 participants. At baseline, more Green House than nursing home residents were African-American (25% versus 5%), and Green House residents were younger (mean age 81 years versus 87 years and 89 years at Cedars and Trinity) and had resided at the sponsoring nursing home for less time than the Cedars residents who did not relocate to a Green House. Functional and cognitive abilities were similar among the groups.

Quality of life in Green House residents was superior to Cedars residents in 9 of 11 domains and to Trinity residents in 4 of 11 domains. There were no differences in self-reported health and function among the groups. Emotional well-being scores were higher for Green House participants than Cedars residents, and satisfaction scores were higher than Cedars residents for 2 of 3 items, and higher than Trinity residents for 1 of 3 items. Green House residents were found to have less involvement in organized activities but to participate in more off-campus outings than Cedars and Trinity residents. With regard to quality of care as measured by 24 quality indicators from the MDS, in comparison to Cedars, Green House residents had lower prevalence of residents on bed rest, fewer residents with little or no activity, and lower incidence of decline in late-loss ADLs; and in comparison to Trinity, Green House residents had lower prevalence of depression and lower incidence of decline in late-loss activities of daily living (ADLs). Sample size was inadequate to evaluate fractures, dehydration, hospitalizations and mortality.

Critical Appraisal

A strength of the study is that broad and relevant outcomes for quality of care and quality of life were used, including instruments validated in dementia and for use with proxies. The quasi-experimental design of this study is a limitation, and voluntary relocation to Green Houses poses a high likelihood of the presence of unmeasured factors that could not be controlled for between the groups. Furthermore, baseline differences in racial composition between the groups do not appear to have been adjusted for in the regression analyses, and could certainly bias assessments of quality of life as well as quality of care. Inability to perform blinded data collection poses problematic measurement bias. Finally the authors point to the likely existence of a “Hawthorne effect,” whereby Green House participants and staff may have exhibited modified behaviors attributable to media attention, and potentially resulting in artificially more positive Green House outcomes. The results of this study are of limited generalizability, owing primarily to small sample size, Hawthorne effect, and inadequate information about important baseline characteristics such as socioeconomic indicators and comorbidities.

Reimer et al., 2004: Quality of life in special care facilities for dementia care

Program Description

In this study, Reimer and colleagues longitudinally compared quality of life over one year in individuals with middle to late stage dementia residing in special care facilities (SCF) versus in traditional nursing homes over the course of one year (Reimer et al., 2004). The SCFs were comprised of 60-bed purpose-built facilities with 10 people living in 6 semi-attached bungalows, having home-like physical environments arranged like a typical home. Modified staff roles were described, integrating personal care, leisure and rehabilitation functions. An ecologic model of care was operative, that is “responsive to unique interplay of each person and the environment, with goal of reducing excess disability.”

Evaluation Method

The study used a prospective, matched-group design over one year, with data collection at baseline and at 3, 6, 9 and 12 month intervals. Individuals expected to move into any of four newly created SCFs were compared with two control groups, matched with SCF residents on the basis of function (Global Deterioration [GDS] scores) and age-adjusted comorbidity score. The first control group was comprised of residents of 28 multiple traditional institutional facilities (MTIFs) in an urban center in Western Canada who were expected to relocate to another one of these facilities, to compare the intervention group with similar residents also undergoing relocation. Individuals in both groups could have come from home or from a facility setting prior to their move. The second control group was comprised of residents of a single traditional institutional facility (STIF) who were not expected to move. Quality of life (QOL) was measured through assessment of 5 domains identified in the literature as important for measuring QOL in individuals with dementia, incorporating both interactive and observational measures: cognition (Brief Cognitive Rating Scale [BCRS]), ADL function (functional assessment staging [FAST]), behavior (Cohen-Mansfield Agitation Inventory [CMAI]), social function (Multidimensional Observation Scale of Elderly Subjects [MOSES] and Apparent Affect Rating Scale [AARS]), and affect (Pleasant Events Scale-Alzheimer's disease). Analysis of covariance (ANCOVA) was carried out.

Evaluation Results

Overall, quality of life was concluded to be the same or better for older adults with middle to late stage dementia residing in SCFs as compared with traditional nursing homes after one year. Sixty-two residents of SCFs and 123 residents of traditional NHs were studied. Participants had similar baseline characteristics, with a mean age of 81.8 years (SD 7.5), 73.5% female, mean Charlson Comorbidity Index score 4.5 (SD 1.4), and middle to late stage dementia (GDS >5). In the cognitive domain, all participants experienced similar and significant

decline in most axes of the BCRS over time, except in the functioning and self-care axis, for which MTIF residents experienced the least decline and SCF residents were in the middle ($p = .012$). In the function domain, FAST scores deteriorated significantly over time for all groups, with the intervention group experiencing less decline than the control groups ($p = .016$). In the behavior domain, there was decline in all groups by the CMAI, and no statistically significant between-group differences. In the social function domain, all groups experienced increased withdrawal from social activity, with no difference between groups on the MOSES, but there was significant between-group variation in engagement in pleasant events over time ($p = .025$), with all groups declining on this scale at 12 months, and STIF participants demonstrating most decline across time.

Critical Appraisal

A strength of the study is its design and sample size, both of which are more robust than many other studies in the literature by being prospective, longitudinal, quasi-experimental, and of moderate size, although it is nonetheless a major limitation that the sampling was non-random, allowing the possibility of selection bias. Another strength is that the outcome of quality of life was well-studied, through a multi-dimensional approach that evaluated five different domains and used both interactive and observational assessments, although it is simultaneously a limitation that it is difficult to study the subjective construct of quality of life in individuals with middle and late stage dementia. Data collection was unblinded, introducing the possibility of measurement bias. Finally, external validity is somewhat difficult due to the lack of information about the socioeconomic characteristics of the population.

Specialized dementia programs in residential care settings (Davis et al., 2000)

Overview

Davis and colleagues undertook this study in light of the proliferation during the 1990s of

assisted living residences that provide specialized dementia care (residential care-specialized dementia programs, or RC-SDPs), with the goal of describing the characteristics of such residences and their residents, and comparing them with nursing homes providing dementia care in special care units (nursing home-special care units, NH-SCUs) and their residents. RC-SDPs were identified and recruited via telephone survey from seven states (California, Kansas, Maine, Michigan, Minnesota, North Carolina, and Washington), and site visits were conducted for data collection. Data were collected about administrative, physical/structural and resident characteristics via observation, chart review and interviews with staff. These cross-sectional data were compared with existing data about the same parameters in NH-SCUs and their residents in the same seven states, from cooperative studies conducted by the National Institute on Aging (NIA) in the early 1990s. Additionally, they developed a classification scheme for RC-SDPs based on their size and administrative structure, which allowed for descriptive comparisons to be made between them.

Results of Comparison

Comparison revealed that RC-SDPs were overall more home-like and had larger staff-to-resident ratios than NH-SCUs, but had similar processes of care and lower private pay costs while caring for an overlapping population of patients cared for in NH-SCUs. Fifty-six RC-SDPs and 259 randomly selected RC-SDP residents were analyzed and compared with 138 NH-SCUs and 1340 randomly selected NH-SCU residents. A modified NIA questionnaire was used to assess administrative characteristics. The Therapeutic Environment Screening Scale (TESS) and Special Care Unit Environment Quality Scales were used to assess the physical environment and processes of care. The Minimum Data Set (MDS) Cognitive Scale and an MDS-based index of activities of daily living (ADL) were used to assess resident characteristics. RC-SDPs were statistically significantly less likely to have bedrooms opening into a long hallway >50 ft than NH-SCUs (41% vs 79%, $p < 0.001$) and more likely to provide extensive tactile and

visual stimulation to residents than at NH-SCUs (23% vs 7%, $p < 0.001$ and 59% vs 37%, $p < 0.001$, respectively). RC-SDPs reported similar total staff hours per resident per week (46.2 hours, SD 30.4) as NH-SCUs (47.8 hours, SD 74.0), which was a statistically significant difference, however ($p < 0.004$). There was no statistically significant difference between RC-SDPs and NH-SCUs in process of care indicators of resident involvement in organized activities and observed staff interaction. Percentage of residents paying privately at RC-SDPs was 79% and at NH-SCUs was 49% ($p < 0.001$), with private pay rate for a private room averaging \$75.20 per day at RC-SDPs and \$104.80 per day at NH-SCUs ($p < 0.001$). Differences in resident characteristics were observed as follows: there was a greater proportion of residents with severe dementia in NH-SCUs than in RC-SDPs (65% vs 45%, $p < 0.001$), while RC-SDPs cared for a greater proportion of patients with moderate dementia than in NH-SCUs (41% vs 13%, $p < 0.001$); greater proportions of dependency in certain ADLs were seen in NH-SCU than RC-SDP residents, with 47% and 29%, respectively, requiring assistance with toileting, and 21% vs 9%, respectively, requiring assistance with eating; and greater proportion of behavioral disturbance evidenced in NH-SCU residents than RC-SDP residents (30% vs 15%, $p < 0.001$).

RC-SDP Typology

The authors developed a typology classifying RC-SDPs into 5 types, based on their size and administrative structure, which were found to underlie distinct differences in facility culture and care. Type I facilities included small, independently operated homes with 10 or fewer residents. Type II facilities consisted of multiple, small homes with joint administration, also having 10 or fewer residents. Type III facilities included large facilities, devoted exclusively to dementia care, with more than 10 residents. Type IV facilities were those in which the RC-SDP was part of a larger assisted living facility that also housed individuals without dementia. Finally, Type V facilities were RC-SDPs that were part of multi-level, continuing care facilities, which included nursing home level care. Resident characteristics were similar between small and large

(>10 residents) RC-SDPs, but small homes reported greater staff hours per resident per week and more home-like environment, but less resident involvement in organized activities.

Critical Appraisal

An important strength of this study is its use of valid measurement instruments and its sufficiently large sample size for drawing statistical comparisons between characteristics of RC-SDPs and NH-SCUs and their residents. The main limitation of this study is its cross-sectional design, which is useful for descriptive comparisons and hypothesis generation, but does not allow for causal inference about relationship of facility characteristics and resident outcomes. Furthermore, the internal validity of this study is threatened by significant possibility for selection bias, as participation by RC-SDPs was voluntary, and by the fact that the NH-SCU comparison data were drawn from a cohort about which little information is provided, thus preventing assessment of the appropriateness of this cohort as a comparison group. External validity is strengthened in that the facilities studied were chosen from multiple, diverse states. The study's observation that RC-SDPs deliver similar processes of care to a population similar to (or at least overlapping with) that of NH-SCUs, but at lower cost to consumers and in a more home-like environment, is germane to the widely held concern that increasing state regulation of RC-SDPs, as seen in nursing homes, may lead to the loss of these advantageous characteristics.

Trajectories of At-Homeness and Health in Small House Nursing Homes (Molony et al., 2011)

Overview

Molony et al. (2011) noted that while the Green House model was associated with many positive outcomes in the initial evaluation study by Kane et al. (2007), it was unclear what aspects of the model contributed to these outcomes, nor did the study characterize individual experiences of residents, which is relevant to the concept of person-centered care. Molony and colleagues theorize that *at-homeness*, a construct of person-environment integration, may be a

key element in health and quality of life outcomes. In this study, the authors sought to investigate *at-homeness* as a potential contributing factor to the positive outcomes experienced by residents of small house nursing homes by replicating the longitudinal quasi-experimental design of the prior study, and adding additional measures, as well as a mixed methods approach, to better understand contributing factors both between and within groups.

Evaluation Methods

The study was carried out at a Midwestern continuing care retirement community where residents of the community's nursing home were being offered the choice to relocate to one of five new small house nursing homes (SmH) being created by the facility 15 miles away, or to remain in the usual care nursing home (ucNH). Of the nursing home's 81 residents, 44 residents met inclusion criteria, based on speaking English, having adequate hearing and cognitive ability to participate and consent, and 28 residents consented to participate. Complete baseline data was able to be obtained from 25 residents, of whom 10 opted to stay in the ucNH and 15 opted to move to a SmH. This mixed methods study entailed data collection at baseline and at 1, 3, and 6 months after moving to the SmH, or equivalent for non-movers. Quantitative measures included demographic characteristics, levels of *at-homeness* (measured by a slightly modified Experience of Home [EOH] Scale), self-rated health, medical comorbidity (Charlson Comorbidity Index), physical dependency (Minimum Data Set [MDS] 2.0), self-reported activities of daily living (Katz ADLs), cognitive function (MMSE), depressive symptoms (Geriatric Depression Scale [GDS-15]), and social support (Norbeck Social Support Questionnaire [NSSQ]). Person-environment fit was furthered measured through various question items, and qualitative interviews were also undertaken at each time wave. Analytic methods consisted of a mixed model to examine all possible interactions between time and covariates, and interview texts were analyzed using a grounded hermeneutic method.

Evaluation Outcomes

The sample was all White (100%), mostly female (84%) and most had graduated high school or had some college education (72%). Baseline health and function characteristics between the two groups were similar (including mean MMSE score for both groups 22.9, mean Charlson Index 8.2 and 8.1, and mean age 84.9 and 82.7 for SmH and ucNH, respectively) except for significant differences in baseline depressive symptoms and *at-homeness*, with the SmH group reporting more depressive symptoms (mean GDS-15 3.7 vs 2.2, $p = .05$) and less *at-homeness* (mean EOH 0.7 vs 0.9, $p = .0475$) than the ucNH group. Regarding trajectories of *at-homeness*, most residents who chose to stay at the ucNH had high baseline EOH scores and maintained these over the next 6 months, and all residents who chose to move to the SmH had increases in their EOH scores over time. A difference in functional trajectories was also seen between groups, with the SmH group experiencing improved ADL function over time, whereas the ucNH group only maintained their function (mean MDS-ADL score decline of 8.8 vs 1.5, $p = .0383$). There were no significant differences within groups in depressive symptoms over time.

Qualitative findings identified factors that contributed to *at-homeness* in both groups, including closeness and involvement with family, relationships with staff members who “really cared,” having fun (with staff or other residents), and having attentive health care. In both groups, high levels of *at-homeness* were associated with perceptions of freedom, and private room and bathroom were highly valued. The authors conclude that the relationships between perceived self-efficacy, functional performance and the small house environment are complex, and that an individualized approach is necessary to optimize *at-homeness* for residents in any location, rather than assuming a “one size fits all” approach to small house nursing homes. Furthermore, they suggest the need for smooth integration of the “social model” and the “medical model” in relation to *at-homeness*, versus an artificial dichotomy that is often discussed.

Critical Appraisal

Overall, this is a fair quality study. The quasi-experimental longitudinal design permits evaluation of certain independent associations between variables, but the small sample size yields insufficient power for full multivariate modeling and analysis. Furthermore, the non-random sampling strategy allows significant possibility for bias. Characteristics of and reasons for non-participation by the moderate number of eligible residents of the ucNH who chose not to participate are not elucidated. Additionally, the authors do not provide adequate details about the intervention, such as the size of the small house nursing homes and the eligibility criteria set by the facility for nursing home residents to move to a small house, to determine degree of similarity or dissimilarity to the prototype Green House model of a small house nursing home and confidently establish external validity.

The significant strength of this study is its qualitative depth and richness, which enabled valuable contextual interpretation of the quantitative findings and furthered the understanding of the complexity of the *at-homeness* construct, as well as added to the limited data on small house nursing homes.

DISCUSSION

The studies analyzed in the systematic review above yielded many valuable insights applicable to the program design and evaluation planning for Charles House-Yorktown Eldercare Home. With regard to the program design, the studies by Kane et al. and Reimer et al. provided useful descriptive details about the Green House model and about Special Care Facilities, respectively, including details about physical layout and environment, staffing mix and organizational hierarchy, care processes and philosophy of care. The studies by Reimer et al. and Molony et al. highlighted the complexity of person-environment fit for quality of life and at-homeness, including the importance of facilitating perceptions of freedom towards maximizing functional performance. The qualitative data in Molony et al.'s study of *at-homeness* were

particularly insightful in the elucidation of factors associated with *at-homeness*, including closeness and involvement with family, relationships with staff members who “really cared,” having fun (with staff or other residents), and having attentive health care. Of note, the studies included participants with mild dementia (Molony et al.) through moderate and late stage dementia (Kane et al., Reimer et al.), consistent with the spectrum of dementia severity in individuals eligible for care at Charles-House Yorktown Eldercare Home, although the program is not being planned to care exclusively for individuals with dementia. Many of these concepts have already been incorporated into the Eldercare Home’s design and processes on an intuitive basis, and the findings in this literature support their continued application and future enhancement. These findings will be useful to consider in the ongoing program improvement of the Eldercare Home.

Information from the studies was also valuable for generating ideas for the evaluation plans for the Eldercare Home. The cross-sectional study of RC-SDPs by Davis et al. is potentially most applicable for evaluation planning for the Eldercare Home, given the parameters for the scope of evaluation, which will be discussed in the Evaluation Plan section of this paper. The instruments for measuring aspects of the environment could be particularly useful, including the Therapeutic Environment Screening Scale (TESS) and Special Care Unit Environment Quality Scales, to assess the degree to which the program is able to provide an environment in line with its goals. Finally, the studies of quality of life and *at-homeness* by Reimer et al. and Molony et al. revealed the importance of assessing quality of life through various different domains and through qualitative techniques in order to gain optimally meaningful information about these outcomes.

Table 1: SUMMARY TABLE OF THE EVIDENCE

Study Author / Year	Davis et al., 2000	Reimer et al., 2004	Kane et al., 2007	Molony et al., 2011
Study Name	Specialized dementia programs in residential care settings	Special care facility compared with traditional environments for dementia care: a longitudinal study of quality of life	Resident outcomes in small-house nursing homes: a longitudinal evaluation of the initial green house program	Trajectories of <i>at-homeness</i> and health in small house nursing homes
Overview of Study / Program Description	5 types of RC-SDPs identified: 1) small, independently operated homes 2) multiple small homes with joint administration 3) larger, all-dementia facilities 4) SDPs operated within larger, exclusively RC facilities 5) RC-SDPs in multi-level facilities	4 Special Care Facilities (SCFs) in an urban Canadian setting, built to facilitate ecological model of care. 60-bed facilities: 6 semi-attached bungalows housing 10 residents each. Home-like physical environment, enhanced staffing ratios and roles, biodiverse environment. No mention if private rooms.	4 Green Houses (GH) with 10 residents each. Model features altered physical environment (small scale, private rooms & bathrooms, residential kitchen, dining room & hearth), staffing model (nursing assistants as universal workers), and philosophy of care (quality of life in normal rather than therapeutic context)	Comparison of health and at-homeness trajectories of nursing home residents who moved to a small house nursing home (SmH) versus those who stayed in the usual care nursing home (ucNH)
Participants	259 randomly selected participants from each of the 56 RC-SDPs and 1340 participants from 138 NH-SCUs in 4 separate NIA cooperative studies. All with dementia.	Sixty-two residents of SCFs and 123 residents of traditional nursing homes (NHs) were studied, with middle to late stage dementia (Global Deterioration Scores >5).	Dynamic; 40 current residents of Green Houses at each time point, 70 current Cedars residents at each time point (replacements by random selection), and 40 current Cedars residents at each time point. All met criteria for NH care, dementia not a requirement.	Voluntary participation by 25 residents of an 81-bed nursing home in a Midwestern continuing care retirement community, out of 54 who met inclusion criteria. 10 opted to move to SmH and 15 remained in ucNH.
Study Methods and	Cross-sectional study to describe the administrative, structural	Prospective, one year, matched group design. Intervention group: moving	2 year longitudinal quasi-experimental study comparing GH residents	6 month longitudinal quasi-experimental mixed methods design with

Measures	and resident characteristics of RC-SDPs in comparison to NH-SCUs in 7 states. Administrative characteristics: modified NIA questionnaire. Structural characteristics (physical environment and process of care): Therapeutic Environment Screening Scale (TESS) and Special Care Unit Environmental Quality Scale. Resident characteristics: facility staff interview and chart review for MDS Cognitive Scale and MDS-based index of activities of daily living. NH-SCU data obtained from NIA cooperative studies.	to SCF from any environment. Control group 1: relocating with multiple traditional institutional facility (MTIF) to another, Control group 2: remaining in a single traditional institutional facility (STIF). Quality of life measured across 5 domains: cognition (Brief Cognitive Rating Scale), function (Functional Assessment Staging [FAST]), behavior (Cohen-Mansfield Agitation Inventory), social function (Pleasant Events Scale-Alzheimer's disease, Multidimensional Observation Scale of Elderly Subjects), and affect (Apparent Affect Rating Scale [AARS]).	with residents at 2 comparison nursing homes using baseline data and three 6 month follow-up intervals. Measures: Quality of life (scales for 11 domains), emotional well-being, satisfaction, self-reported health and functional status. Quality of care: 24 quality indicators from MDS.	repeated measures at baseline and 1, 3 and 6 months. Quantitative measures included self-rated health, functional dependence (MDS 2.0), self-reported function (Katz ADLs), depressive symptoms (Geriatric Depression Scale-15), <i>at-homeness</i> (Experience of Home [EOH] scale). Qualitative data collection involved interviews at each wave of data collection.
Results	Higher proportion of participants with severe dementia and ADL dependency in NH-SCU than RC-SDP. Higher proportion of private pay participants in RC-SDP. Similar processes of care and overlap of participant population, but at lower cost for private pay consumers, and with greater flexibility and more	Residents of SCFs had less functional decline than both control groups as measured with FAST scale, more sustained interest in the environment as measured by the AARS, with increased interest and less anxiety/fear. All groups demonstrated declines over time in cognition (including concentration and orientation), behavior,	Green House residents younger and higher proportion African - American. Compared to Cedars, GH participants scored higher in most quality of life domains, satisfaction, emotional-wellbeing, and had less bed rest, less ADL decline. Compared to Trinity, GH participants scored better in some quality of life	Residents who opted to move to SmH had lower <i>at-homeness</i> on EOH scale and higher depressive symptoms at baseline than residents who stayed in ucNH. Residents of ucNH maintained their high EOH scores over 6 months and all SmH residents had improved EOH scores over time. SmH residents experienced less functional

	home-like environment in RC-SDPs. Small RC-SDPs reported greater staff hours per resident per week and more home-like environment than large RC-SDPs, but less resident involvement in organized activities.	depression and social withdrawal, without significant between group differences.	domains, and in 1 of 3 satisfaction items, no difference in emotional well-being, and had less depression, less ADL decline, more incontinence. No difference in self-reported health or function between the groups. GH residents participated less in organized activities, but more off-campus outings.	dependence after moving, whereas ucNH residents maintained same function. Qualitative findings highlight complexity and individualized nature of <i>at-homeness</i> ; social relationships and perception of freedom were important in both locations.
Internal Validity	Cross-sectional design prevents causal inferences. Voluntary participation and vague definition by RC-SDPs creates strong possibility for selection bias. Inadequately powered for comparisons between the RC-SDPs subtypes.	Longitudinal, quasi-experimental design more robust than many others in literature, but still suboptimal and sampling bias very possible. Measurement bias also possible due to unblinded data collection.	Quasi-experimental design rather than randomized controlled trial; selection bias, as GH residents were voluntary; confounding by age and race possible, and by other unmeasured factors such as socioeconomic status; measurement bias, as data collectors were non-blinded.	Threats to internal validity in both groups include environmental changes at both the SmH's and the ucNH, more similar to each other over time. Non-random sampling introduces strong possibility of bias. Small sample size prevented full multivariate modeling.
External Validity	Aggregate data not readily generalizable to individual state contexts.	No information on socioeconomic characteristics of residents; reasonable generalizability to diverse state contexts.	No information on socioeconomic characteristics and comorbidities of residents; difficult to generalize.	Inadequate information about SmH nursing homes to enable generalization with other SmHs or compare with ucNH

Abbreviations: RC-SDP: Residential Care-Specialized Dementia Program; NH-SCU: Nursing Home-Special Care Unit; NIA: National Institute on Aging; MDS: Minimum Data Set; SCF: Special Care Facility; ADL: Activities of Daily Living.

EVALUATION PLAN: LOOKING TOWARDS PROGRAM IMPROVEMENT

INTRODUCTION

This section consists of an evaluation plan for the Charles House-Yorktown Eldercare Home program, including the rationale for and approach to the evaluation, discussion of evaluation study design and methods, evaluation planning tables, discussion of institutional review board considerations and dissemination plans.

RATIONALE AND APPROACH TO THE EVALUATION

Purpose of Evaluation

The Executive Director of the Charles House Association (CHA) and researchers at the University of North Carolina-Chapel Hill are interested in conducting an evaluation of the Charles House-Yorktown Eldercare Home to understand lessons learned and to disseminate the program's model. The primary focus of the evaluation is on improving the program and informing a planned upcoming local replication of the program by CHA. There is a secondary focus on potential dissemination of the program, to share findings about effective program elements and program challenges in response to intense societal interest in innovative models of long-term care. The primary intended user of the evaluation is therefore CHA itself, and secondary users include a potential dissemination audience comprised of other program developers, advocates, researchers and policymakers interested in eldercare.

The Charles House-Yorktown Eldercare Home program has been operating for three years, and evaluation at this stage will enable determination of how well the program is achieving its intended goals. There is particular interest in assessing the effectiveness and outcomes of certain novel program elements. In addition to assessing the program's outcomes, the evaluation will also focus attention on the program's processes. Process evaluation includes questions about whether there are gaps in the process or areas that need improvement, and how best to continue to move towards long-term goals. These evaluation findings will be directly

useful for planning the implementation of the new Charles House-Winmore Eldercare Home that CHA is preparing to open in the Winmore neighborhood development in Chapel Hill. Maintaining the focus on these evaluation goals will help to ensure that the evaluation is ultimately useful.

Evaluator Roles

Key skills and characteristics required to successfully conduct this evaluation include the ability to listen and integrate multiple perspectives and evaluation priorities, and expertise in evaluation and research methodology. Flexibility and problem-solving ability are also important for devising optimal evaluation methods given the lack of baseline data and comparison group. Also needed are experience with and appreciation of principles of patient- and family-centered care for elders, knowledge of societal priorities in this area, and having a philosophy that is well aligned with that of CHA.

The proposed evaluation will be led by myself, a master's degree public health student with recent fellowship training in geriatric medicine and an interest in community-based long-term care and in program planning and evaluation. My role is that of an external evaluator, working very closely and collaboratively with program staff, primarily with the CHA Executive Director. In this way, I will identify resources and build internal capacity for ongoing evaluation. This combination of external and internal evaluator roles is ideal for this context, given the evaluation goals of program improvement and consideration for dissemination.

As an external evaluator, I am able to contribute methodological expertise and access to expert faculty advisors in evaluation and in long-term care research, who also comprise members of the evaluation team. Advantages of collaboratively engaging program staff in internal evaluator roles include their familiarity with the program, knowledge of what is feasible as evaluation methods are considered, their access to other staff and participants, and the opportunity to gain their buy-in in the process, towards maximizing the evaluation's utility (Centers for Disease Control and Prevention, 2013b).

Evaluation Focus: Stakeholders and Narrowing the Focus

In addition to the evaluation team, other key stakeholders who are necessary to involve in the evaluation process include Eldercare home residents and their family caregivers, Heritage Hills neighborhood residents, Yorktown program staff, Yorktown volunteers and the CHA Board of Directors (BOD). Eldercare home residents and their families are expected to be primarily concerned with whether the program is effectively providing acceptable health and quality of life to its residents and their family caregivers, as well as whether the program can be delivered more cost effectively, at lesser cost to families. Heritage Hills neighborhood residents' questions will likely pertain to whether and how the Eldercare Home's presence in the neighborhood is beneficial or harmful to their community, and how it can become more of an asset to the neighborhood. Yorktown volunteers' questions will likely pertain to the volunteer experience. Program staff are expected to be concerned with program processes, the effects on residents and on staff well-being and needs. The BOD will be concerned with sustainability, public perception and fidelity to the organization's mission. The perspectives of all of these stakeholders will be sought throughout the evaluation process via interviews and focus groups, and during BOD meetings. Prioritization will be given to shared, common questions among the stakeholders.

Additional valuable stakeholders whose perspectives might also be recruited include the Orange County Division of Aging and the municipalities of Carrboro and Chapel Hill, Triangle J Area Agency on Aging, the local Alzheimer's Association, and elders and caregivers in the community at large.

Potential challenges, feasibility and efficiency

The scope and quality of an evaluation are broadly bounded by available time, budget, data, and political constraints, and it is valuable to identify these bounds to plan an optimal

evaluation strategy (Bamberger, 2006). Time and budget do not pose foreseeable challenges for this evaluation, given its small scale and the availability of resources by virtue of the community-academic partnership in place. Data availability poses a more significant challenge, however, as there are no baseline data or pre-existing comparison group to enable the most robust pre-post methodological evaluation designs, and there is limited ability to reconstruct or retrospectively identify these. This reality will necessitate the use of less rigorous quantitative and qualitative approaches, but will provide valuable depth and richness of information, which are arguably more relevant to the ultimate goal of this evaluation, and will afford greater practical utility in evaluating the program implementation process (Bamberger, 2006).

Finally, consideration of the political environment or human context of the evaluation provides insight into biases and other forces that are relevant to an evaluation's validity. The key influence of which to be aware is the bias of both the program staff and evaluation team towards demonstrating program success. To ensure the evaluation's propriety, a cardinal standard of high quality evaluations (Patton, 1997), it is therefore imperative that we apply deliberate strategies to identify and remedy any such bias throughout the evaluation plan. Such strategies include actively seeking the perspectives and input of multiple stakeholders and ensuring that difficult questions are asked, always remaining focused on the goal of program improvement.

EVALUATION STUDY DESIGN

The Charles House-Yorktown Eldercare Home is now in its third year of operation and the primary purpose of this evaluation is program description and program improvement, as well as evaluation of short-term outcomes, towards consideration for dissemination. A secondary purpose is planning for longer-term program implementation and evaluation goals. I developed broad evaluation questions pertinent to these purposes from the perspective of stakeholders including program staff and management, Yorktown elders and family caregivers, Heritage Hills neighbors, community partners and a potential dissemination audience. I then focused the

evaluation questions on the basis of evaluation priorities, stage of program development, available resources, and feasibility. The following evaluation study design and methods were chosen to fit the evaluation questions, per best practices outlined by the Centers for Disease Control program evaluation framework (Centers for Disease Control and Prevention, 2013b).

An observational study design is necessary for evaluation of program implementation and short-term outcomes to date, because there are no baseline data available and no readily identifiable comparison group. A quasi-experimental study design can be undertaken for the next phase of evaluation, as we will have the opportunity to collect quantitative baseline data from intervention and comparison groups. This next phase encompasses the longer-term program goal of engaging the Heritage Hills neighborhood with the Eldercare Home in mutually beneficial ways. The rationale for a quasi-experimental study design approach is to enable us to establish an independent association between the program activities and the knowledge and attitudes of the neighborhood residents. Due to the small sample sizes involved, however, we will not be able to evaluate for a causal relationship between program activities and effects on the neighborhood, because we will not be able to achieve adequate statistical power for a study design that could measure and adjust for potential confounders (Issel 2014).

EVALUATION METHODS

The evaluation questions call for a mixed-methods approach, utilizing both qualitative and quantitative data collection methods. Qualitative methods will be most useful for implementation evaluation, to gather rich descriptive and contextual information about program processes. These methods will include document review, individual semi-structured interviews, focus groups, and surveys conducted among program staff and management, Yorktown elders and family caregivers, and Heritage Hills neighbors. Focus groups will be preferable to interviews for most purposes due to their efficiency for obtaining information from multiple individuals at once, and interviews will be used to supplement information from focus groups in

certain circumstances, such as to elicit information from Yorktown residents with cognitive impairment whose abilities are better suited to one-on-one interactions, or to further elucidate potentially sensitive or complex themes which emerge during focus groups.

Quantitative methods will be most useful for outcome assessment and outcome evaluation, as well as for some aspects of process evaluation, which entail quantifying activities and participants. Specific quantitative methods include the use of questionnaire instruments for measures of person-centered care delivery, Yorktown resident and family caregiver quality of life, Yorktown resident health status, family caregiver burden, family caregiver depression, and Heritage Hills neighborhood resident knowledge and attitudes about caregiving. Evaluation questions, participants and methods are detailed in the following evaluation planning tables, grouped according to program goals and objectives which correspond to the program logic model.

EVALUATION PLANNING TABLES

Background

Question	Participants	Indicator/Method
How did CHA develop and begin operation of the Charles House-Yorktown Eldercare Home in partnership with the HH neighborhood?	YT mgmt, HH neighborhood association	- Document review - Interviews - Focus Groups
What were the challenges and facilitating factors?	YT mgmt, HH neighborhood association	- Interviews - Focus Groups - Surveys

Short-term Objectives (1-3 years)

GOAL 1: Enable optimal quality of life and health for Eldercare Home residents

Objective 1a: Achieve high quality of life for Eldercare Home residents as compared with nursing home residents as reported in the literature.

Strategy: By delivering person-centered residential LTC in small care home

Question	Participants	Indicator/Method
Does the program achieve high quality of life for YT residents?	YT staff, YT mgmt, YT residents and family cgrs	QOL Measures for NH residents (Kane, 2003)
Does the program successfully deliver person-centered residential LTC?	YT staff, YT mgmt, YT residents and family cgrs	- Person-Centered Care Toolkit (Van Haitsma et al, 2014)
Are YT residents and family cgrs satisfied with QOL?	YT residents and family cgrs	- Interviews - Focus Groups - Surveys
What are the challenges and facilitating factors for staff in delivering person-centered residential LTC?	YT staff, YT mgmt	- Interviews - Focus Groups - Surveys
Is the presence of the program in the HH neighborhood well-received by neighborhood residents?	HH neighborhood	- Interviews - Focus Groups - Surveys

Objective 1b: Meet national benchmarks for selected health-related quality indicators for Eldercare Home residents.

Strategy: By delivering person-centered residential LTC in small care home

Question	Participants	Indicator/Method
Does the program meet national benchmarks for selected health quality indicators for YT residents?	YT staff, YT mgmt	- 24 health quality indicators from Minimum Data Set - NPI-Q Behavioral

		Assessment Scale - number of antipsychotic medications per resident
Are YT residents and family cgrs satisfied with YT resident health?	YT residents and family cgrs	- Interviews - Focus Groups - Surveys

Objective 1c: Achieve high levels of social connectedness as measured by weekly frequency of meaningful contacts in the last two weeks, for all Yorktown eldercare home residents.

Strategy: by caregiver and community involvement program components

Question	Participants	Indicator/Method
Does the program achieve high levels of meaningful social connectedness for YT residents?	YT staff, YT mgmt, YT residents and family cgrs	- Weekly frequency of meaningful contacts in the last 2 weeks OR other social connectedness scale appropriate to NH/ALF setting - Interviews - Focus Groups - Surveys
What are the main mechanisms for achieving social connectedness?	YT staff, YT mgmt	- Interviews - Focus Groups - Surveys
What were the challenges and facilitating factors for staff in implementing these mechanisms?	YT staff, YT mgmt	- Interviews - Focus Groups - Surveys
Are YT residents and family cgrs satisfied with levels of social connectedness?	YT residents and family cgrs	- Interviews - Focus Groups - Surveys

GOAL 2: Enable optimal quality of life for family caregivers of Eldercare Home residents

Objective 2a: Achieve low levels of caregiver burden for primary family caregivers of Eldercare Home residents as compared with caregivers of nursing home residents as reported in the literature.

Objective 2b: Achieve low levels of caregiver depression for primary family caregivers of Eldercare Home residents, as compared with caregivers of nursing home residents as reported in the literature.

Objective 2c: Achieve high levels of quality of life for primary family caregivers of Eldercare Home residents, as compared with caregivers of nursing home residents as reported in the literature.

Strategy: By developing a protocol of education and activities to facilitate family caregivers' transition to a modified caregiving role during and after their relative's relocation to the Eldercare Home, and to ensure the ongoing meaningful involvement of family caregivers

Question	Participants	Indicator/Method
Does the program achieve lower levels of caregiver burden than seen in cgrs of nursing home residents?	YT family cgrs	Zarit Caregiver Burden Index OR other instrument
Does the program achieve lower levels of caregiver depression than seen in cgrs of nursing home residents?	YT family cgrs	Selected caregiver depression instrument
Does the program achieve higher levels of caregiver QOL than seen in cgrs of nursing home residents?	YT family cgrs	Selected caregiver QOL instrument
Has the program successfully implemented a protocol for facilitating YT family cgr role transition?	YT staff, YT mgmt	<ul style="list-style-type: none"> - Document review (program records: written protocol) - Interviews - Focus Groups - Surveys
What were the challenges and facilitating factors in implementing this protocol?	YT staff, YT mgmt, YT family cgrs	<ul style="list-style-type: none"> - Interviews - Focus Groups - Surveys
Are YT family cgrs satisfied with program's activities to optimize cgr burden, cgr depression and cgr QOL?	YT family cgrs	<ul style="list-style-type: none"> - Interviews - Focus Groups - Surveys

Long-term Objectives (3-5 years)

GOAL 3: Engage the Heritage Hills Neighborhood with the Eldercare Home in mutually beneficial ways.

Objective 3: By 5 years of operation, indicators will show increased neighborhood engagement between the Eldercare Home and the Heritage Hills Neighborhood as compared to baseline.

Strategy: During the 4th year of operation, conduct focus groups to elicit perspectives and priorities of Heritage Hills Neighborhood residents, Eldercare Home residents and their family caregivers, and program staff and leadership, with an emphasis on identifying neighborhood residents who are caregivers. During the 5th year of operation, utilize information gained from focus groups to develop and implement activities to engage the neighborhood and the Eldercare Home in mutually beneficial ways, with an emphasis on supporting neighborhood caregivers, if any.

Question	Participants	Indicator/Method
Do indicators show increased neighborhood engagement between the HH neighborhood and YT Eldercare Home, 5 years after program initiation?	YT mgmt, YT staff, YT residents and family cgrs, HH neighborhood residents	Measures TBD
Were focus groups conducted as intended?	YT mgmt, YT staff, YT residents and family	<ul style="list-style-type: none"> - Document review (program records)

	cgrs, HH neighborhood residents	
What information was gained from the focus groups?	YT mgmt, YT staff, YT residents and family cgrs, HH neighborhood residents	- Document review (focus group transcripts and summaries)
How was this information utilized by the program?	YT mgmt, YT staff, YT residents and family cgrs, HH neighborhood residents	- Document review (program records) - Interviews - Focus Groups - Surveys
What were the challenges and facilitating factors in this process?	YT mgmt, YT staff, YT residents and family cgrs, HH neighborhood residents	- Interviews - Focus Groups - Surveys
Were community partners engaged and how? (ie What was their involvement?)	YT mgmt, community partners	- Interviews - Focus Groups - Surveys
What were the challenges and facilitating factors in engaging community partners?	YT mgmt, community partners	- Interviews - Focus Groups - Surveys
Were these community partners satisfied with their involvement?	YT mgmt, community partners	- Interviews - Focus Groups - Surveys
Were program staff/mgmt, participants and neighborhood residents satisfied with their involvement in the process?	YT mgmt, YT staff, YT residents and family cgrs, HH neighborhood residents	- Interviews - Focus Groups - Surveys

Legend:

YT = Yorktown

WM = Winmore (planned local replication of Eldercare Home program)

YT mgmt = Yorktown management (administration and Board)

HH = Heritage Hills (neighborhood in which YT is located)

QOL = quality of life

LTC = long-term care

cgr = caregiver

INSTITUTIONAL REVIEW BOARD CONSIDERATIONS

One of the goals for this evaluation is dissemination of findings about the program's implementation and outcomes, which qualifies it as evaluation research. Thus, it will require approval from the Institutional Review Board (IRB) at the University of North Carolina-Chapel Hill to ensure appropriate protection of human subjects' rights, and key issues will need to be addressed as follows. The primary risks for Yorktown residents and their family caregivers are the emotional risks associated with disclosure of sensitive personal information (distinct from concerns about confidentiality) including quality of life, depression, and functional abilities. Yorktown residents may also be concerned with retribution from program staff based on the information they provide about their satisfaction with care. Program staff may be concerned with implications for their job security resulting from their honest comments about the program's processes or management. These risks will necessitate procedures for data confidentiality among the research staff. Finally, another IRB consideration is that Yorktown residents comprise a vulnerable population, due to cognitive impairment and physical disability/dependence. This will require special measures for obtaining informed consent for their participation, involving determination of decision-making capacity and obtaining consent from appropriate surrogate decision-makers. Due primarily to the involvement of this vulnerable population, we will apply for full IRB review.

DISSEMINATION PLANS

A well thought out dissemination strategy is critical to ensure that the evaluation results reach intended recipients, and that they are relevant and useful for program improvement and for other uses by stakeholders (Bamberger, 2006; CDC, 2013b; Issel, 2014). Based on the evaluation goals of program improvement and dissemination of the program description and outcomes, the intended recipients can be broadly categorized into the following 3 groups:

program improvement audience (program staff and management), community support and accountability audience (CHA Board of Directors, Yorktown residents and family caregivers, community partners), and dissemination audience (program developers, eldercare researchers, policymakers and advocates).

A dissemination and communication grid will be constructed to reflect the information needs and communication strategies for each audience (Kellogg, 2004), throughout the evaluation planning and implementation process, and extending through to dissemination of results and ensuring the preparation of a follow-up action plan. Active stakeholder involvement in the planning phase of the evaluation, such as during development of program theory, will increase stakeholder ownership and utilization of evaluation findings about the program process, and help to build internal evaluation capacity.

Effective communication and dissemination to each of these audiences will entail diverse modes and strategies, summarized as follows. The program improvement audience is anticipated to be most interested in practical and timely feedback about improving program processes, which can be delivered through regular, periodic staff meetings and evaluation briefing meetings with the program management. Case studies, examples and graphics will be favored over technical reports to communicate with program staff, whereas quantitative and data-intensive reports and updates will be additionally valuable to program management. A follow-up action plan meeting will be facilitated for decision-making about final recommendations and options, and technical assistance will be provided to develop tools to implement and monitor the follow-up action plan. The community support and accountability audience will be primarily interested in evidence of program outcomes to validate their support and participation. An interim report and the final evaluation report will be provided to the CHA Board of Directors. A summary of the final report designed specifically for community audiences can be distributed via e-mail to community stakeholders, included in the CHA newsletter, and

made available on the CHA website. Presentations will be given to the CHA Board of Directors, meetings of partner organizations and at community forums involving aging services providers. Additionally, following any program events for which community partners provided support, a brief communication expressing appreciation and conveying simple event metrics will be sent to the organization, along with a request for feedback. Lastly, various stakeholders in the dissemination audience will be most interested in having an adequate description of program elements, processes and context; credible evidence of outcomes, including statistical evidence; and relevance to the broader landscape of long-term care policy. Avenues for publication in academic and practice journals will be sought, as appropriate, based on the evaluation methods and rigor that we are ultimately able to achieve.

DISCUSSION

The Charles House-Yorktown Eldercare Home program represents an evidence and theory-based strategy to improve the quality of life of elders who require residential care and their family caregivers, which is novel in its plans for neighborhood engagement. It has been designed to align with the pressing local, state and national priority to address the need for long-term care alternatives for elders that provide robust quality of life and health care and reduce the toll of caregiver burden and depression for family caregivers. By investing also in the program's sustainability in partnership with the neighborhood, the Charles House-Yorktown Eldercare Home program will hopefully serve as a model for replication toward wider availability of long-term care that meets the needs of elders, caregivers and the community.

Strengths of the program plan include its thoroughness and its development from an existing community organization to support its sustainability. Challenges for the program include that the goal of neighborhood engagement is novel, and there is little information in the literature to guide this initiative. Developing a shared vision for how best to achieve neighborhood engagement may be challenging due to the presence of the many different stakeholder groups

involved, including Eldercare Home residents and their family caregivers, direct care staff, program leadership and Heritage Hills neighbors.

The Charles House-Yorktown Eldercare Home program carries broad relevance for community-based residential care models for elders. In line with preferences of the baby boomer generation to age in one's own community (Keenan 2010), there is growing interest in small-scale, home-like environments, guided by culture change principles, of which the Eldercare Home is an example. The program is novel, however, in that it is being developed through a partnership between an existing community organization and a neighborhood association. This developmental paradigm is a significant asset towards the goals of providing high quality residential care and quality of life for elders, meaningful caregiver support for their family caregivers, and valuable connection with the surrounding neighborhood. Additionally, the programmatic focus on the interface with the surrounding neighborhood is an area that has received little attention, and that has relevance for many existing long-term care models. With the aging population projected to triple by 2050, the need for strategies addressing quality of life and caregiver burden in residential long-term care settings is great, and the Charles House-Yorktown Eldercare Home program exemplifies an attempt to meet this societal need.

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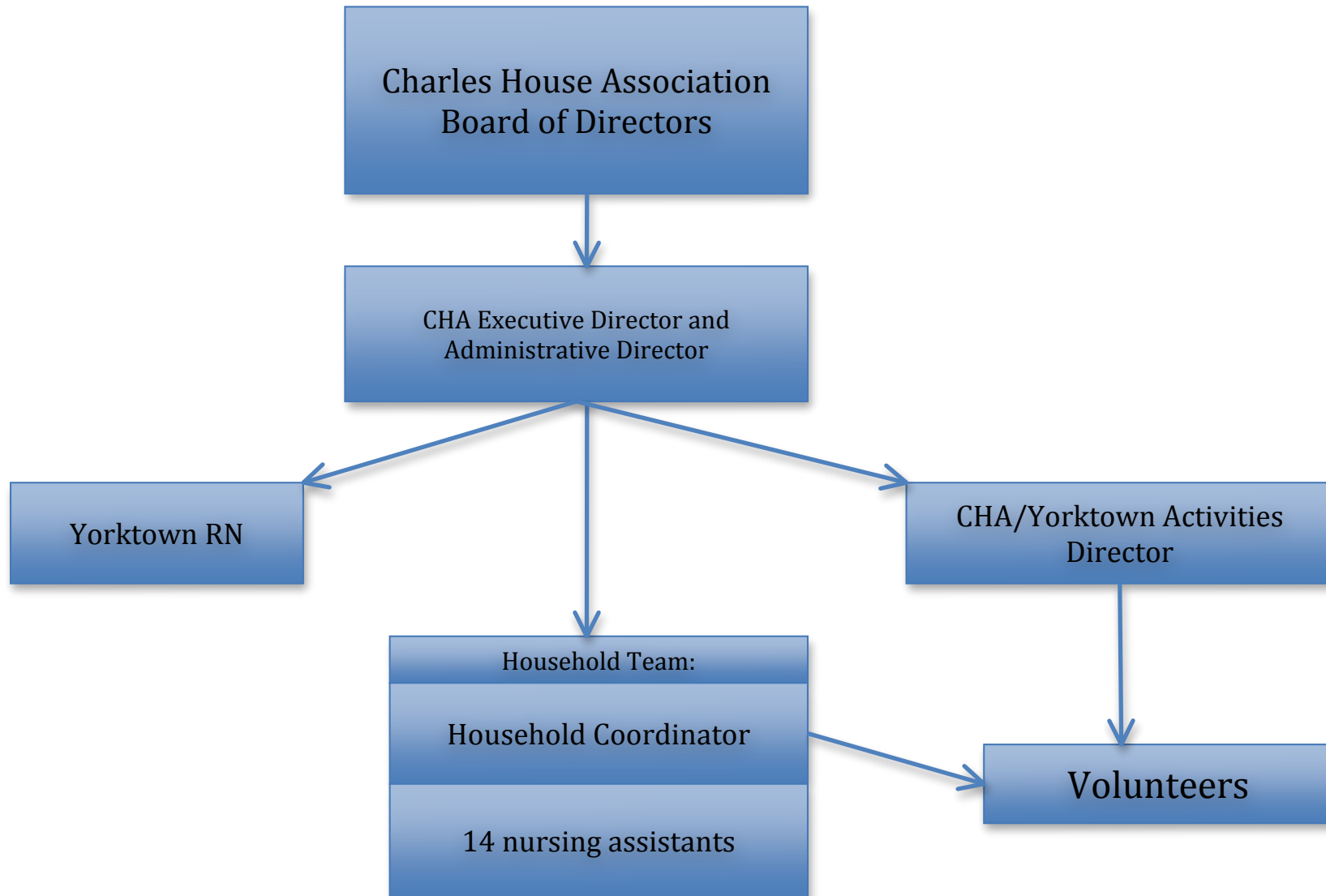
APPENDICES

PROPOSED 5-YEAR OPERATING BUDGET: YORKTOWN ELDERCARE HOME

INCOME	1 year	5 years
Annual occupancy fees (67365 x 6 residents)	404190	2020950
TOTAL INCOME	404190	2020950
EXPENSES		
Salary/Staff	294,576	1472880
Building Expenses		
Property maintenance/Utilities		
Water	2089	
Electricity	3432	
Gas heat, hot water, cooking	766	
HVAC	198	
Maintenance	2953	
Cleaning supplies	354	
Security	385	
Appliance maintenance	170	
Garbage/recycle tax	272	
Pest control	305	
Landscape contract services	265	
Total property maintenance/Utilities	11189	55945
Mortgage Interest	16488	82440
Insurance		
Professional liability	3274	
Workman's Compensation	6380	
NC Unemployment	5769	
Total insurance	15423	77115
Eldercare Home Expenses		
Cable, phone, internet	3907	
Medication and Pharmacy	3304	
Kitchen and Dietary		
Groceries	16880	
Kitchen/Dietary supplies	190	
Total kitchen and dietary expenses	17070	
Equipment	861	
Garden/Newspapers/General	1085	
Total Eldercare Home Expenses	26227	131135
Administrative		
Telephone	613	
Office supplies	54	
Postage	9	

Bank fees	36	
Staff appreciation/events	170	
Professional dues/licensure	315	
Mileage/vehicle	2439	
Total Administrative	3636	18180
Depreciation	18887	94435
TOTAL EXPENSES	386,426	1932130
NET INCOME	17,764	88820

CHARLES HOUSE-YORKTOWN ELDERCARE HOME ORGANIZATIONAL CHART



PROGRAM TIMELINE

TIMELINE					
	Year 1	Year 2	Year 3	Year 4	Year 5
Begin providing residential LTC for 6 elders					
Implement protocol to facilitate transition of family caregivers to new caregiving role with continued meaningful involvement					
Conduct neighborhood survey to assess caregiving prevalence, needs/priorities, attitudes					
Utilize neighborhood survey results to plan initial activities to engage non-resident neighborhood elders and caregivers					
Refine and repeat neighborhood activities, build community engagement and participation					
Partner with UNC-SPH for program evaluation and publication					